U.S. - Algeria Ministerial LNG Summit

LNG – Role in Meeting Demand in the North American Natural Gas Market

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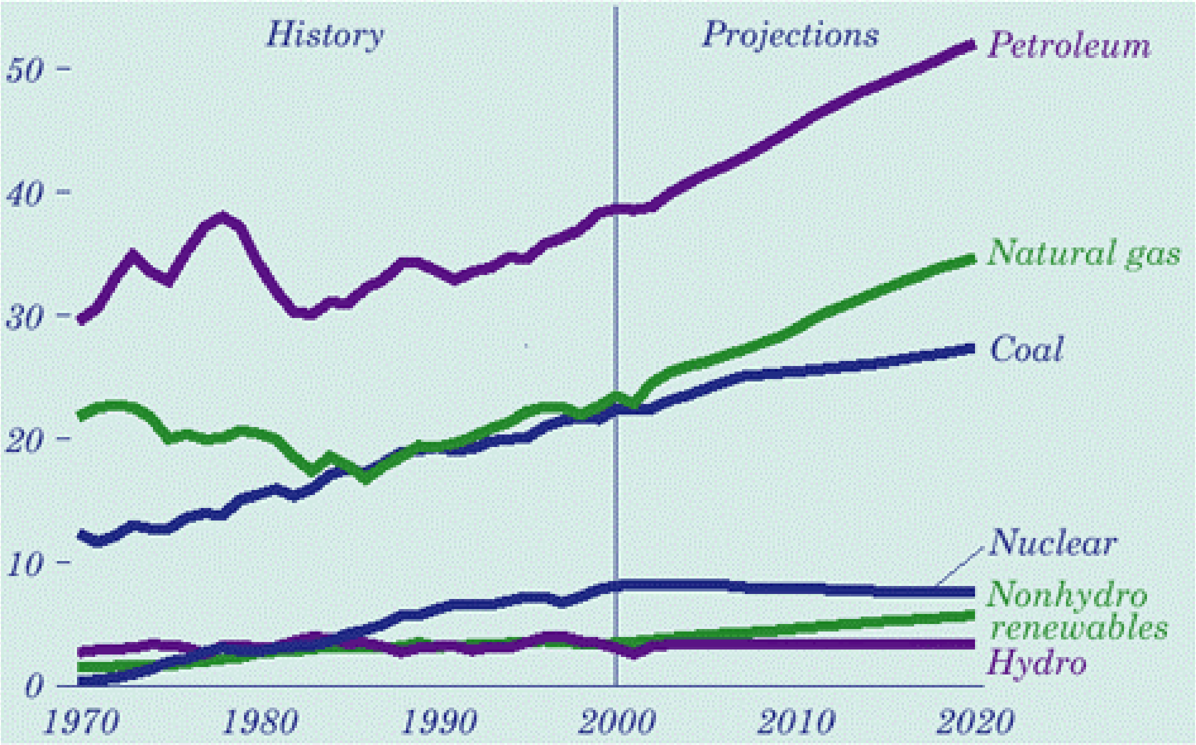
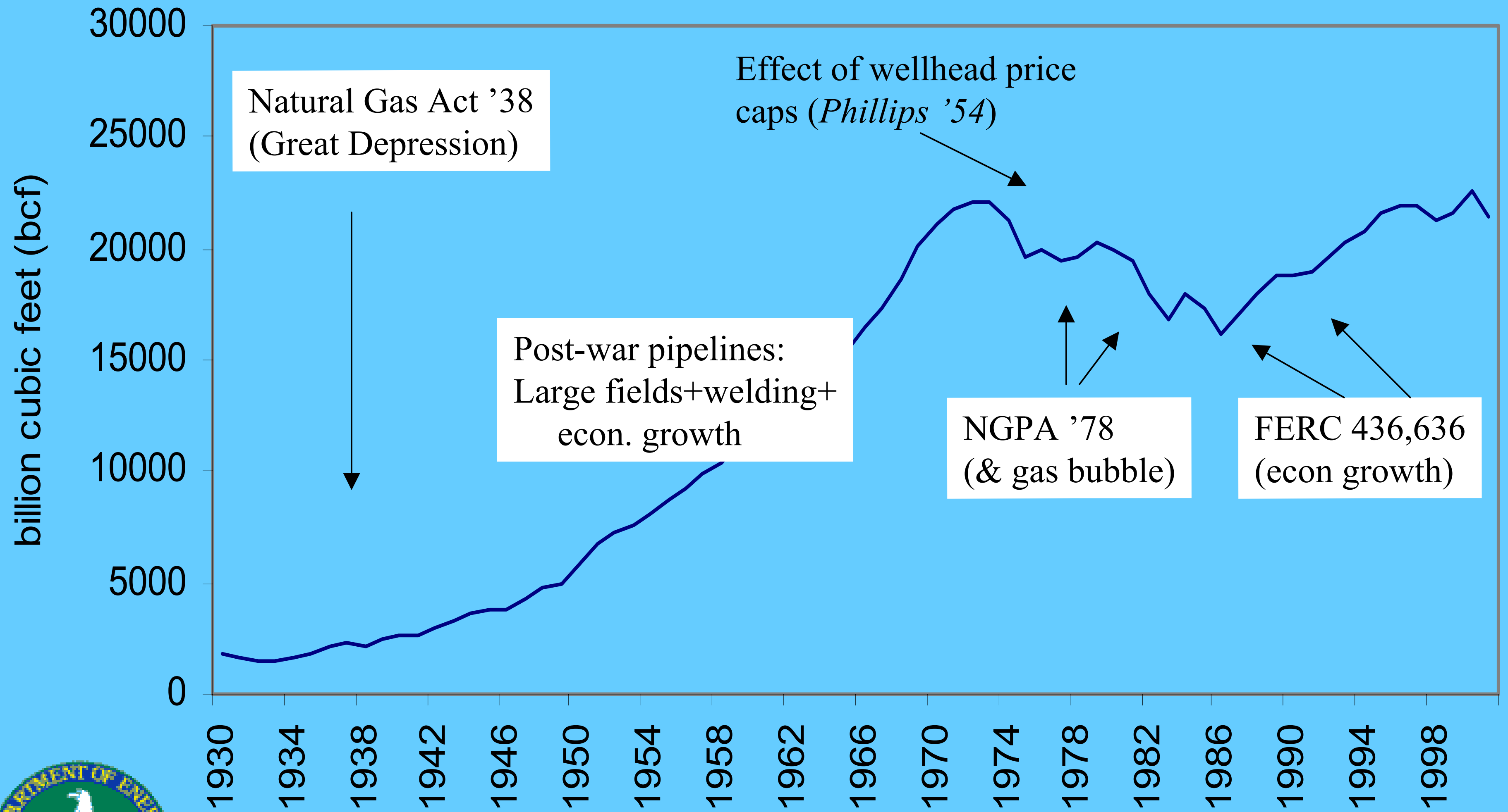
Natural Gas Has an Increasing Role in the U.S. Fuel Mix

Figure 2. Energy consumption by fuel, 1970-2020 (quadrillion Btu)



History: Energy Information Administration, *Annual Energy Review 2000*, DOE/EIA-0384(2000) (Washington, DC, August 2001). **Projections:** Tables A1 and A18. (EIA Annual Energy Outlook 2002)

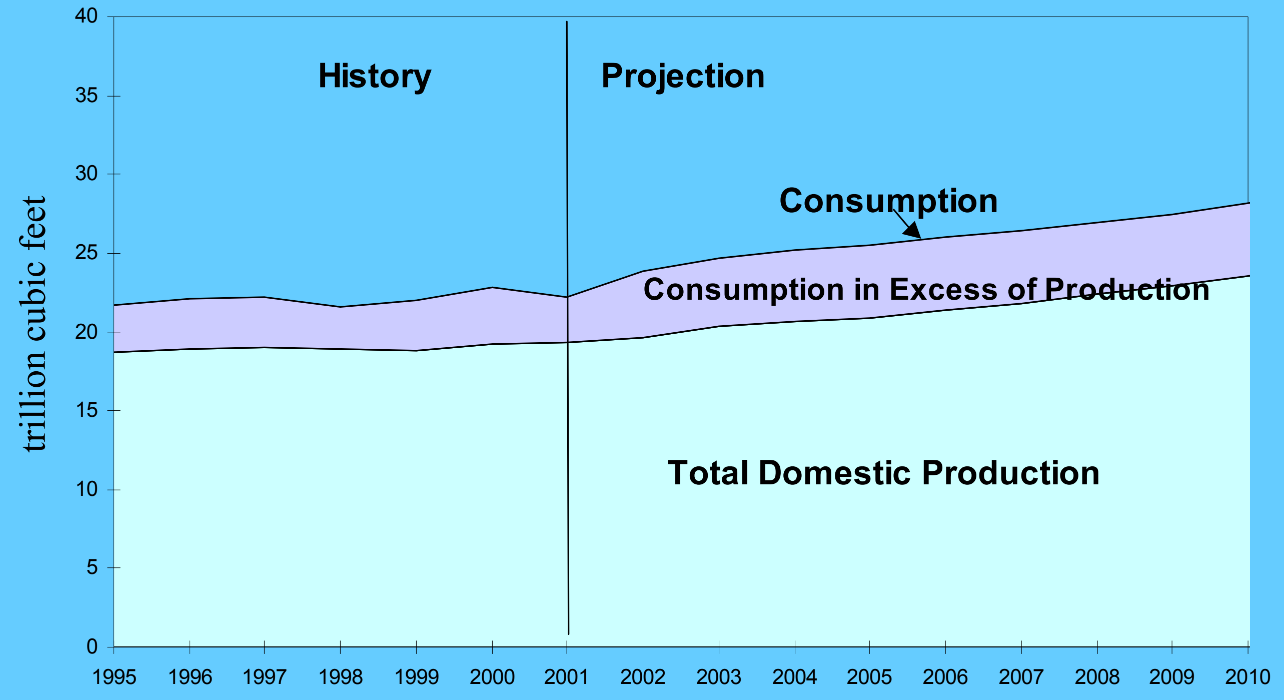
U.S. Gas Consumption & Past Drivers



Source: EIA, www.eia.doe.gov

Imports Are an Important Source of U.S. Gas Supply --

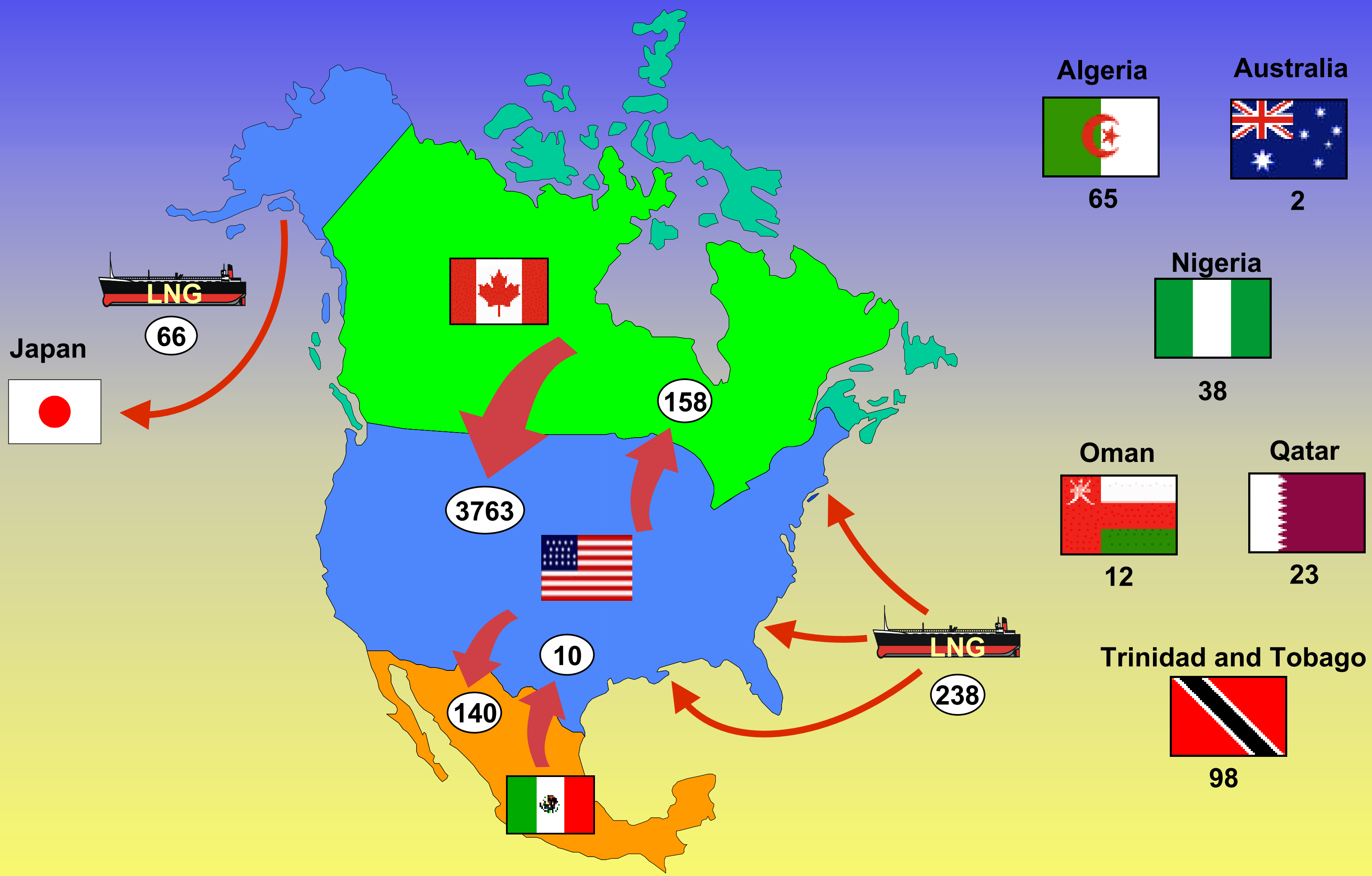
Net imports represented an estimated 15.6% of total domestic gas demand in 2000. EIA projects that this will increase to 16.7% by 2020.



Source: Energy Information Administration *Annual Energy Outlook 2001*

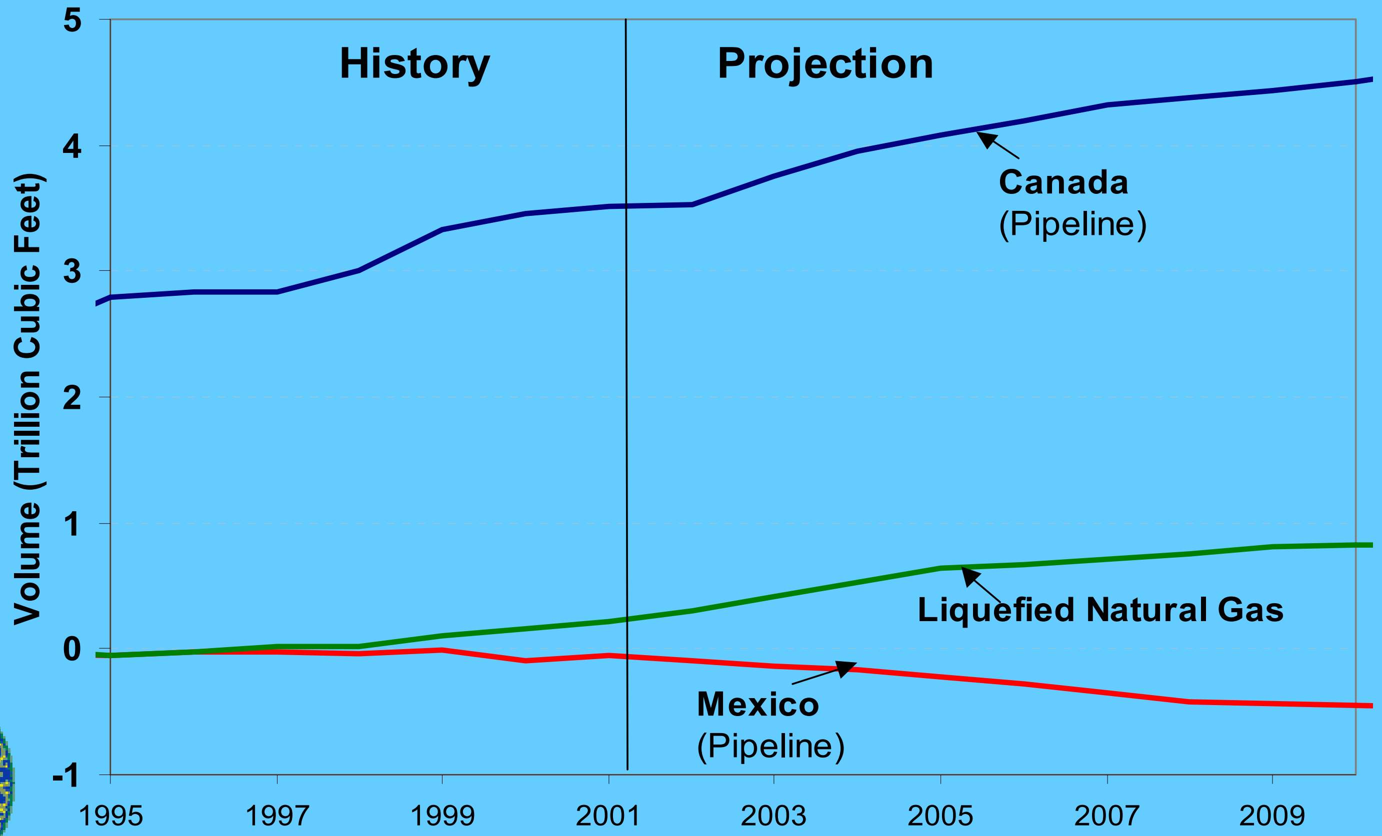
Natural Gas Imports & Exports, 2001

(Billion Cubic Feet)



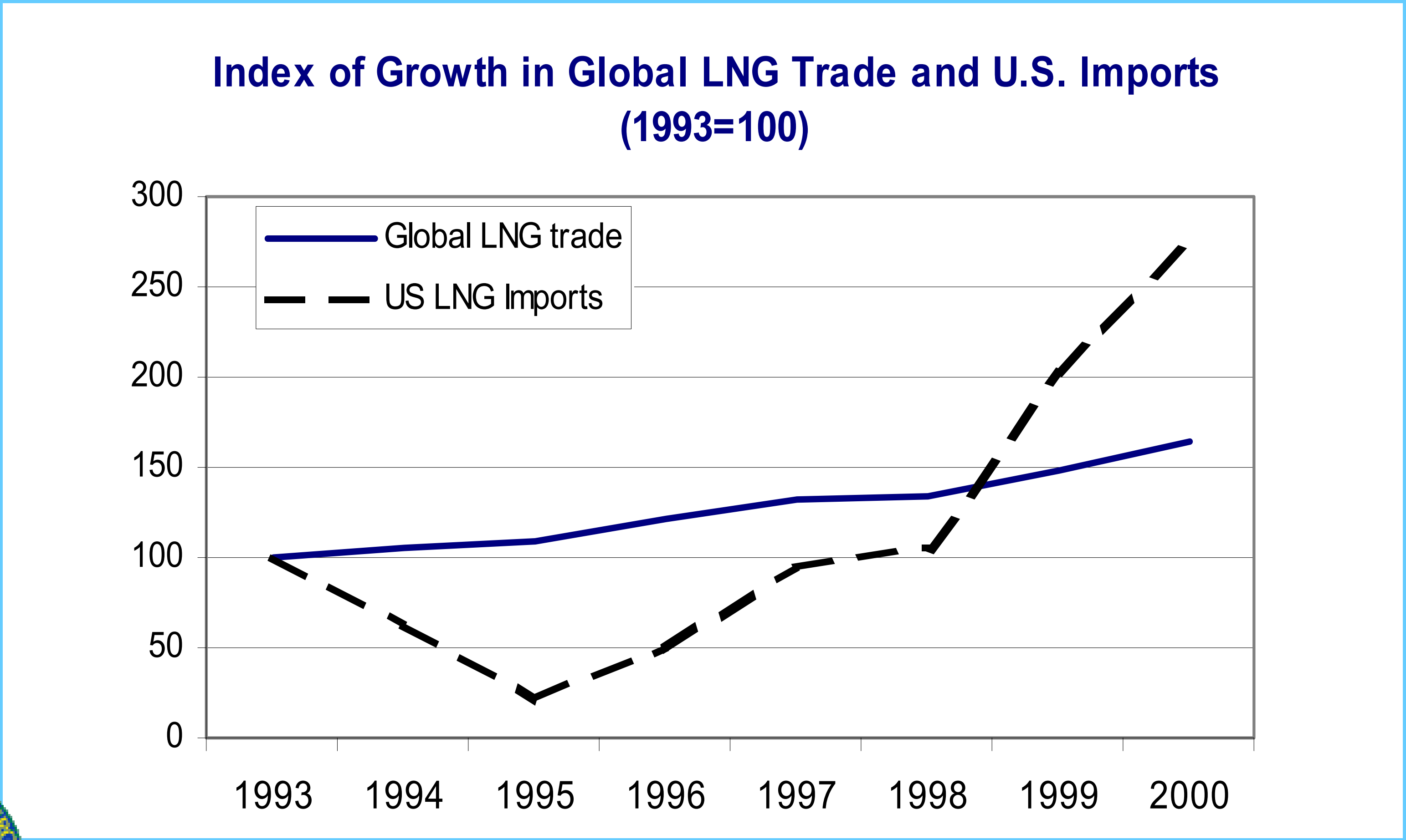
LNG Is a Growing Part of U.S. Imports

- LNG imports more than doubled between 1998 and 2000 (from 85 Bcf to 224 Bcf) and are expected to continue growing.
- LNG imports can play a significant role on a regional basis.

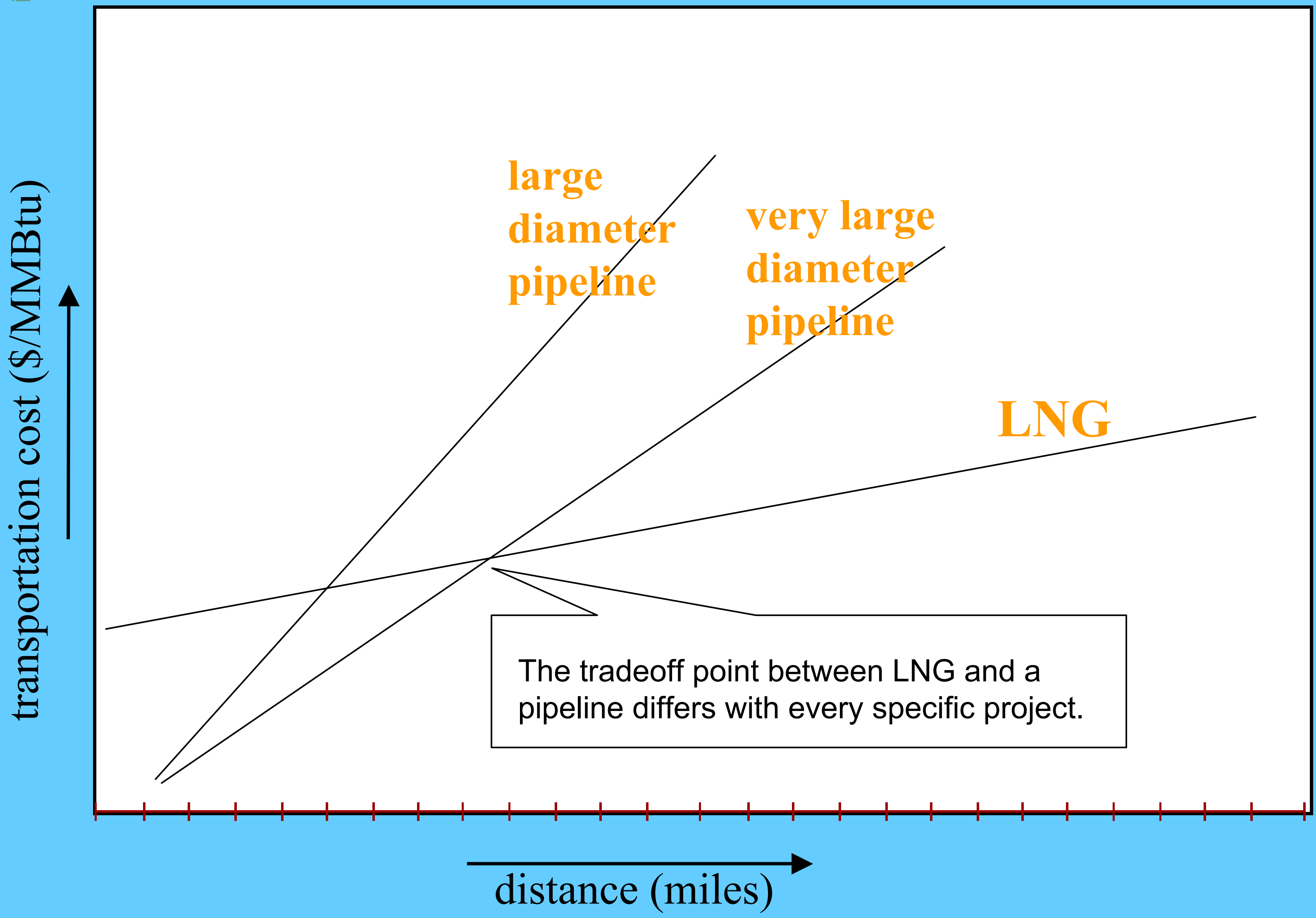


Source: EIA, www.eia.doe.gov

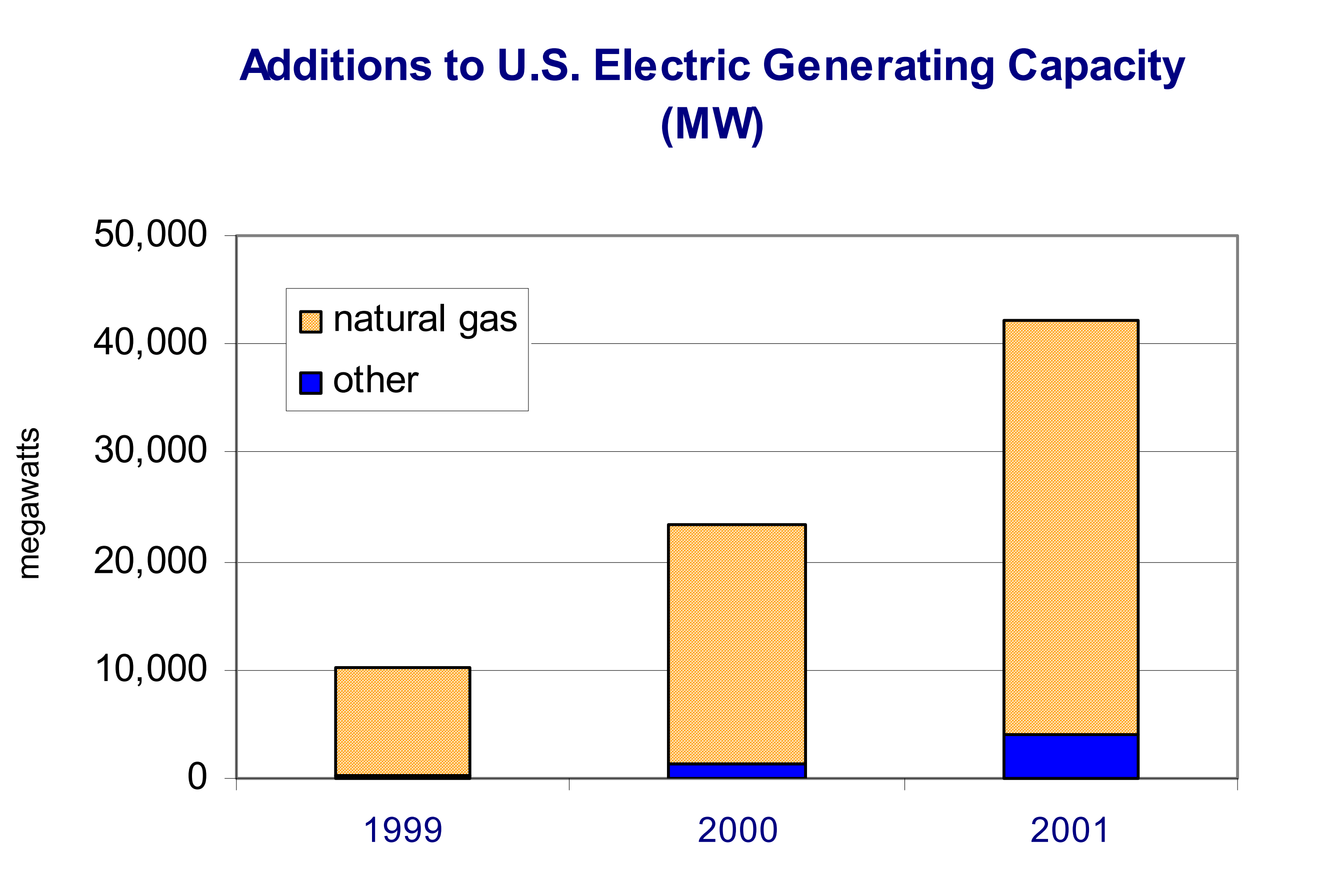
U.S. LNG imports have grown rapidly in recent years, even when compared to growing global trade.



General Competition in Natural Gas Transportation



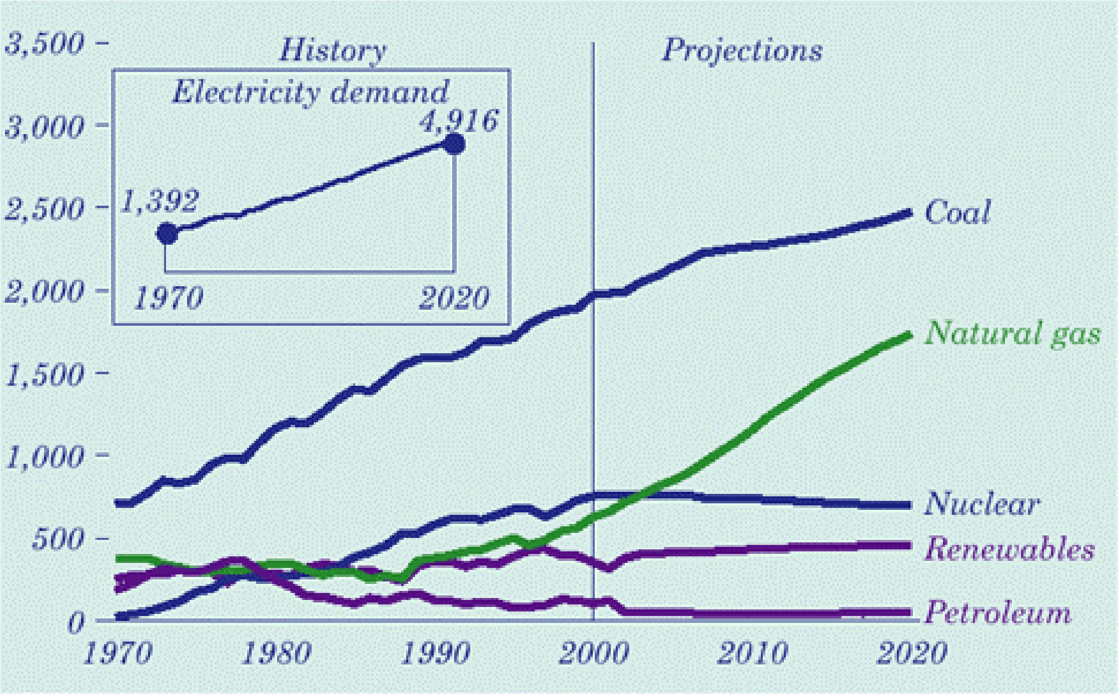
Gas-Fired Powergen –
Recent Additions



Powergen Is Driving Rising U.S. Gas Use

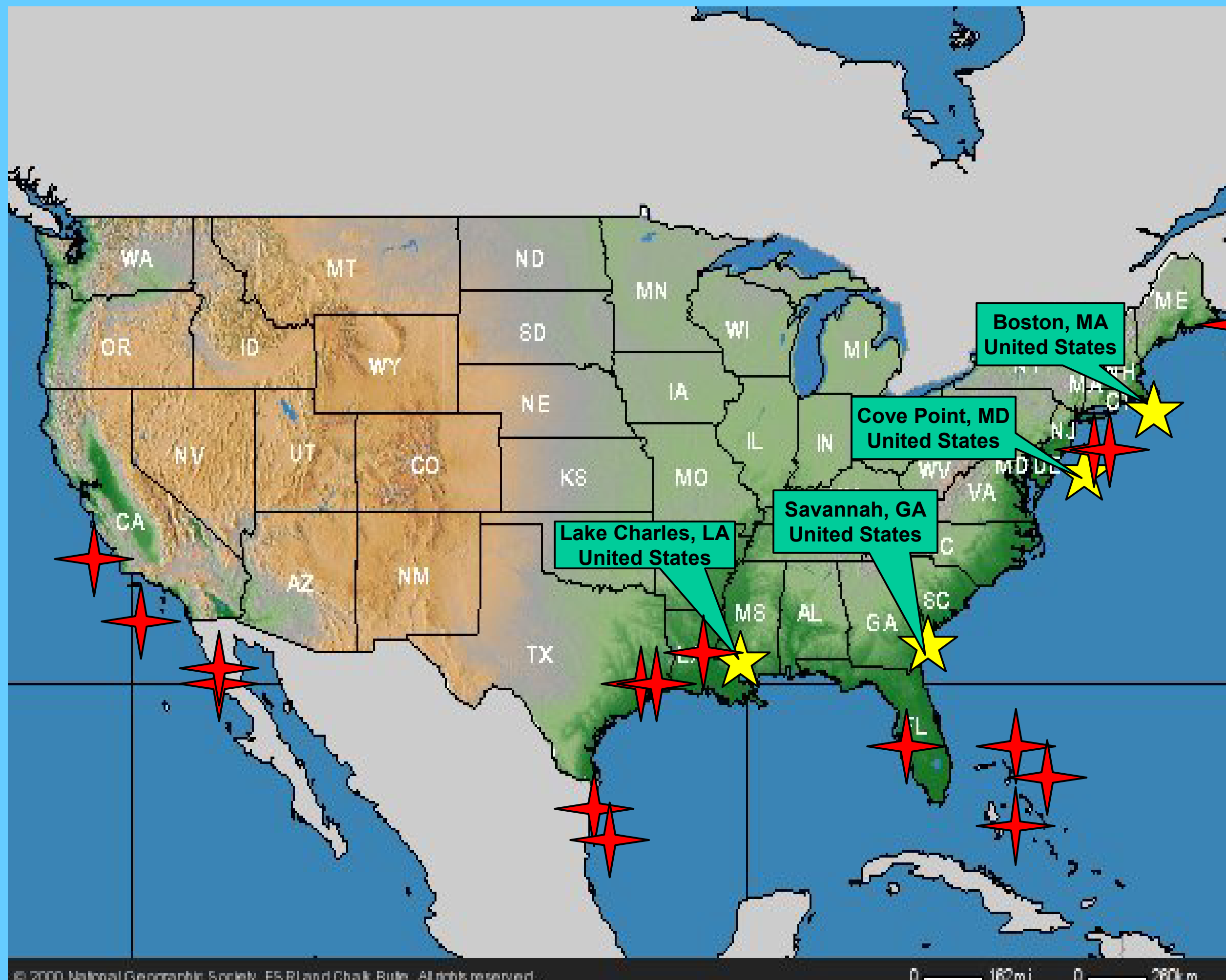
More than half of the increased gas demand in 2020 is for the power sector

Figure 4. Electricity generation by fuel, 1970-2020 (billion kilowatthours)



History: Energy Information Administration (EIA), Form EIA-860B, "Annual Electric Generator Report— Nonutility"; EIA, *Annual Energy Review 2000*, DOE/EIA- 0384(2000) (Washington, DC, August 2001); and Edison Electric Institute. **Projections:** Table A8. (EIA Annual Energy Outlook 2002)

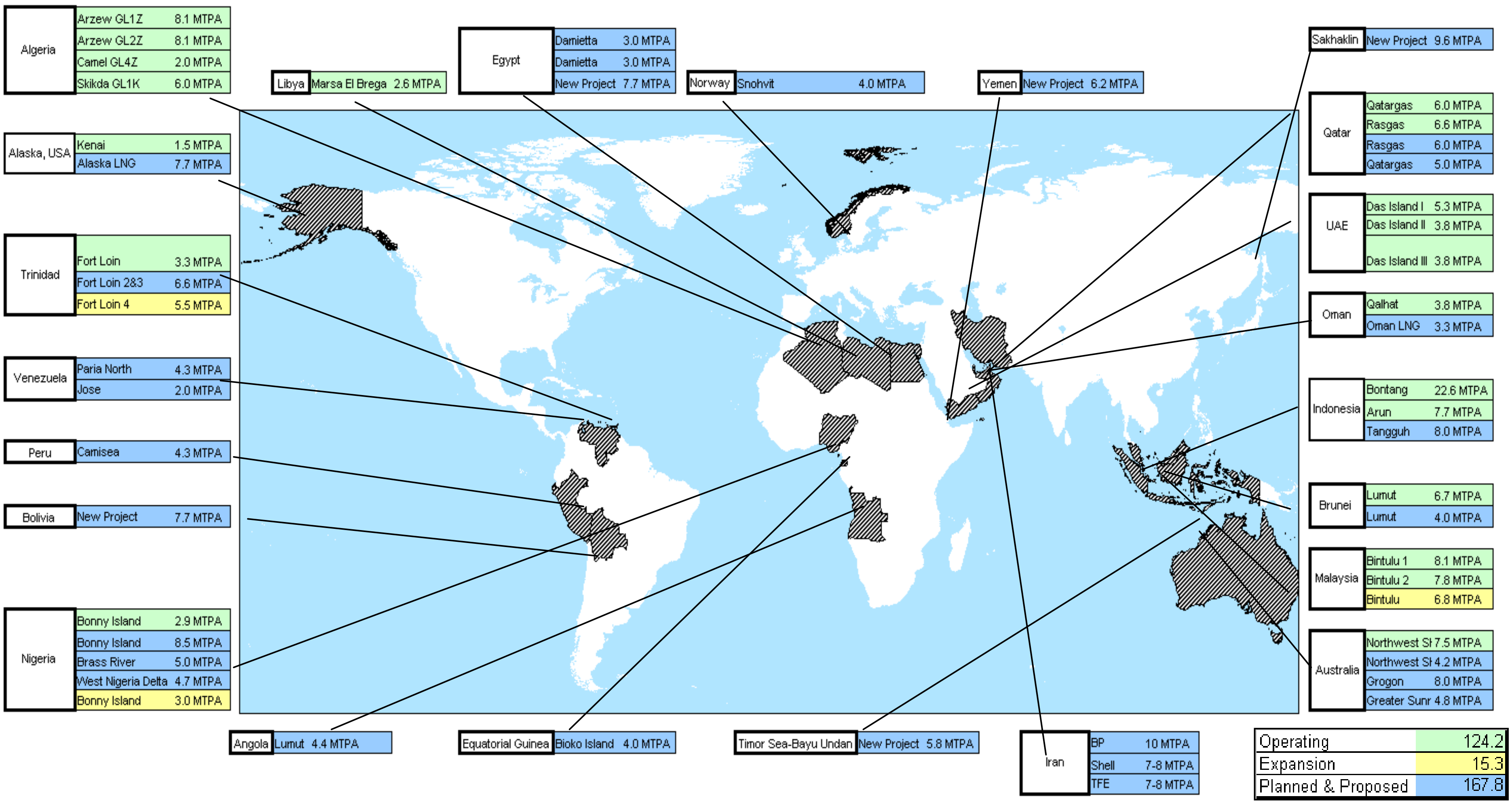
Existing and Proposed New Terminals



Existing Terminal

Proposed Terminal

Existing and Proposed New Liquefaction Capacity



Source: Industry, EIG's World Gas Intelligence, Asia Pacific Consulting

1970's and 2000's
What is different about this Market?

- US Gas market largely deregulated
  - Buyers and sellers dominate market
- Power market deregulation – new participants
  - Power utilities are entering the gas market
- Cast of players in US LNG market
  - Majors/Large non-integrated
  - Pipeline companies
  - Construction/shipbuilders
- More competitive LNG value chain

1970's and 2000's
What is different about this Market?

- Difficulty siting pipe to demand areas
- Projected increases in power needs with greater environmental sensitivities
- Worldwide LNG market
- Recent gas trading issues
- Technology, innovation – cost reduction

Looking Forward – Issues and Opportunities

- New and diverse supply
  - Competition for capital – not every opportunity will materialize
  - Corporate portfolios – investment priorities compete internally
- Demand - Supply proximity
  - Is there a new paradigm for LNG use? - Boston example
- Market development
  - Base load demand?
  - Commodity trade development?

Looking Forward – Issues and Opportunities

- Regulatory environment
  - Open access
  - New technology options
  - CZM
- Public perceptions
  - Siting
  - Safety and Security
- National Petroleum Council Study